

What Is Claimed Is:

1. A clustering disk controller comprising  
a plurality of disk control units,  
connection means which connects said plurality of  
disk control units,  
channel control units installed in said disk control  
units,  
a switch installed in said clustering disk controller  
and connected to said channel control units and host  
computers;

wherein said switch comprises a data table for holding  
correspondence information between a destination channel  
control unit which is an access destination set by said host  
computer and a channel control unit which actually transfers  
said access request.

2. A clustering disk controller comprising  
a plurality of disk control units,  
connection means which connects said plurality of  
disk control units,  
channel control units installed in said disk control  
units,

a switch installed in said clustering disk controller and connected to said channel control units and host computers;

wherein said switch comprises a data table for holding information on whether or not to transfer data to a different channel control unit from the channel control unit which received the access request from said host computer.

3. The clustering disk controller as defined in Claim 1, wherein plural channel control units can be specified as the destination of the access request from said host computer, and said data table stores a probability that an individual channel control unit of said plural channel control units will be selected as a channel controller which actually forwards said access request.

4. The clustering channel control unit as defined in Claim 1, further comprising a service processor (SVP) which manages the information in the disk controller and modifies said data table.

5. The clustering channel control unit as defined in Claim 1, further comprising proxy level tables holding information on an intermediate step until the channel

control unit which received the access request from the host computer should process the access request.

6. A control method of a disk subsystem which comprises
- a plurality of disk control units,
  - connection means which connects said plurality of said disk control units, channel control units, and
  - a switch equipped with a data table for transferring an access request from a host computer to the channel control units; the method comprising
    - a step of transferring access request from the host computer to a predetermined channel control unit based on said data table,
    - a step of processing the access request, by the channel control units to which said access request is transferred, and
    - a step of sending, to the host computer, data indicating that the destination channel control unit specified as the destination of the access request from the host computer has replied to the access request.

7. The disk subsystem control method as defined in Claim 6, comprising

- a step wherein if the channel control unit to which the access request is transferred is different from the

destination of the access request from the host computer, the channel control units which received the request processes the request up to an intermediate step,

a step wherein completion of processing up to the intermediate step is notified to the requested destination channel control unit, and

a step wherein the remaining processing is performed by said requested destination channel control unit.

8. The disk subsystem control method as defined in Claim 6, wherein said disk subsystem comprises

a proxy level table holding information on the intermediate step up to which the channel control unit which received the access request from the host computer should process said access request; the method comprising:

a step wherein said channel control unit processes the access request transferred by said switch up to the intermediate step based on the information recorded in said proxy level table;

a step wherein completion of processing up to said intermediate step is notified to the channel control unit which is the requested destination of the access request actually specified by the host computer; and

a step wherein the remainder of the access request processing which has been performed up to the intermediate

step, is performed by the requested destination channel control unit.

9. The disk subsystem control method as defined in Claim 6, wherein the disk subsystem comprises a service processor (SVP) which manages information in the disk controllers;

wherein said SVP looks up load information for the channel control units, and modifies said data table so that an access request from the host computer addressed to a channel control unit under heavy load, is transferred to a channel control unit under low load.

10. The disk subsystem control method as defined in Claim 9, wherein said SVP looks up fault information for the channel control units, and modifies said data table so that an access request from the computer addressed to a faulty channel control unit, is transferred to a normal channel control unit.

11. The disk subsystem control method as defined in Claim 9, wherein said SVP looks up load information for the channel control units, and modifies said data table so that the processing level with respect to the channel control unit under low load is increased.